UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,987	03/12/2004	Vijay Deshmukh	5693P052	6878

48102 7590 03/19/2007	EXAMINER	
NETWORK APPLIANCE/BLAKELY		
12400 WILSHIRE BLVD	LIE, ANGELA M	
SEVENTH FLOOR		
LOS ANGELES, CA 90025-1030	ART UNIT	PAPER NUMBER
	2163	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/798,987	DESHMUKH ET AL.
	Examiner	Art Unit	
	Angela M. Lie	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 December 2006</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>29-54</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>29-54</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>12 March 2004</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   New corrected drawings in compliance with 37 CFR 1.121(d) are required in this

application because the current drawings are hand written and certain portions of the

drawings are hard to read and therefore it is impossible to clearly examine them.

Applicant is advised to employ the services of a competent patent draftsperson outside

the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings.

The corrected drawings are required in reply to the Office action to avoid abandonment

of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3.   The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4.   **Claims 29, 30, 33-35, 39, 40 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Park (US Publication No. 2005/0108484).**

As to claim 29, Park discloses a method comprising: using a first agent (one of the threads; paragraph 20 and figure 5, elements 300 and 400) to scan a first subset (the block corresponding to this thread; paragraph 20) of a hierarchical structure (wherein the directory is considered a hierarchical structure) of data maintained by a storage server (Figure 5, element 60), to collect information about the first subset (first compressed data is considered to be information about the first subset; paragraph 20); using second agent (one of the threads; paragraph 20) to scan a second subset (the block corresponding to this thread; paragraph 20) of the hierarchical structure (wherein the directory is considered a hierarchical structure) of data maintained by the storage server (Figure 5, element 60), to collect information about the second subset (second compressed data is considered to be information about the first subset; paragraph 20); storing the information about the first subset and the information about the second subset in a physical storage facility which is accessible by an application for display to a user (Figure 5, element 70).

As to claim 30, Park discloses the method wherein the hierarchical structure of data is a directory structure of data stored by the storage server (Figure 5, element 60).

As to claim 33, Park discloses the method wherein the storing comprises storing the information about the first subset and the information about the second subset in the same format (paragraph 20).

As to claims 34 and 46, Park discloses the method wherein the format is a non-file system specific format (paragraph 20, directory of files).

As to claim 35, Park discloses the method wherein the storing comprises storing the information about the first subset and the information about the second subset on a database server (Figure 5, elements 400 and 70, and paragraph 20).

As to claim 39, Park discloses a system comprising: a storage server (Figure 5, elements 300 and 60) coupled to a volume of data (60), the storage server maintaining a directory structure of the volume (paragraph 20, lines 3-4); a first agent (one of the threads; paragraph 20 and figure 5, elements 300 and 400) coupled to the storage server (60), to scan a first subset of the directory structure of the volume to collect information about the first subset (first compressed data is considered to be information about the first subset; paragraph 20); a second agent (one of the threads; paragraph 20) coupled to the storage server (Figure 5, element 60), to scan a second subset of the directory structure of the volume to collect information about the second subset (second compressed data is considered to be information about the first subset; paragraph 20); and a database server (Figure 5, elements 400 and 70) coupled to the first agent and the second agent, to store the information about the first subset and the information about the second subset in a physical storage facility (70).

As to claim 40, Park discloses the system comprising a storage system management application (Figure 5, element 200) coupled to the storage server (Figure 5, elements 300 and 60) and the first and second agents (multiple threads, paragraph 20), to control the first and second agents.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 31, 32, 44, 45, and 47-51 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Park (US Publication No. 2005/0108484) in the view of Sim et al

(US Publication No. 20030046369).

As to claims 31, 32, 44, 47 and 50, Park teaches all the limitations in claim 29,

however he does not explicitly state the first agent uses first file system and the second

agent uses a second file system which is different from the first file system, wherein one

file system is NFS and the second file system is CIFS. Sim teaches a method for

distributing data among plurality of nodes, wherein distributed files system can be

implemented using any one of several known network file system for instance Common

Internet File System (CIFS) or Network File System (NFS). It would have been obvious

to one of the ordinary skill in the art during the time the invention was made to use CIFS

and NFS for file distribution as taught by Sim, and use it in Park's invention because this

system would be compatible with both Microsoft and Sun Microsystems file transfer

implementation, i.e. file transfer would be universal.

As to claim 45, Park discloses the method wherein the storing comprises storing

the information about the first subset and the information about the second subset in the

same format (paragraph 20).

As to claim 51, Park teaches the system comprising: a database server (Figure 5, elements 300 and 400) to maintain the storage facility (Figure 5, elements 60 and 70).

As to claim 48, Park teaches a system comprising: a storage server to maintain a volume of data (Figure 5, elements 300 and 60), including to maintain a directory structure of the volume of data (paragraph 20); a first agent (one of the threads; paragraph 20 and figure 5, elements 300 and 400), to scan a first subset of the directory structure of the volume to collect information about the first subset (the block corresponding to this thread; paragraph 20); a second agent (one of the threads; paragraph 20), to scan a second subset of the directory structure of the volume to collect information about the second subset (the block corresponding to this thread; paragraph 20); a storage facility (70) coupled to the first agent and the second agent (300) to store the information about the first and the information about the second subset in the same format (paragraph 20); and a management application (Figure 5, element 200) coupled to the storage server and the first and second agents (Figure 5, elements 300, 400 and 70), to control the first and second agents (i.e. first and second threads). Park does not explicitly teach that first agent and second agent are using the different format. Sim teaches a method for distributing data among plurality of nodes, wherein distributed files system can be implemented using any one of several known network file system for instance Common Internet File System (CIFS) or Network File System (NFS). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to use CIFS and NFS (i.e. two different formats) for file

distribution as taught by Sim, and use it in Park's invention because this system would

be compatible with both Microsoft and Sun Microsystems file transfer implementation,

i.e. file transfer would be universal.

As to claims 49, Park discloses the method wherein the format is a non-file

system specific format (paragraph 20, directory of files).

7.   **Claims 36, 37 and 42 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Park (US Publication No. 2005/0108484) in the view of Anglin et

al (US Publication No. 20040098363).

As to claims 36 and 42, Park discloses the method and system as disclosed in

claims 29 and 39 respectively, however he does not explicitly teach that the data is

stored in tables. Anglin teaches a hierarchical storage management wherein the

information is saved in the form of table of content (TOC) (paragraphs 2 and 15). It

would have been obvious to one of the ordinary skill in the art during the time the

invention was made to store information taught by Park in the form of table because this

would simplify data and space management (paragraph 16).

As to claim 37, Park discloses the method and system as disclosed in claim 29,

however he does not explicitly teach that the data is stored in one table. Anglin

however, teaches storing data in the form of table and further he also teaches merging

tables (paragraph 16). It would have been obvious to one of the ordinary skill in the art

during the time the invention was made to store data taught by Park (paragraph 15) in

the form of a table and then merging those tables as taught by Anglin, because this

would allow to better organize the data while merging of those tables would allow to reduce the needed space.

8.   **Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Publication No. 2005/0108484) in the view of Sim et al (US Publication No. 20030046369) and further in the view of Anglin et al (US Publication No. 20040098363).** Park and Sim teach all the limitations disclosed in claim 48, however they do not explicitly teach data being stored in tables. Anglin teaches a hierarchical storage management wherein the information is saved in the form of table of content (TOC) (paragraphs 2 and 15). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to store information taught by Park in the form of table because this would simplify data and space management (paragraph 16).

9.   **Claims 38 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Publication No. 2005/0108484) in the view of Kouznetsov (US Patent No. 6973577).** Park teaches all the limitations disclosed in claims 29 and 39 respectively, however he does not explicitly teach storing first and second information in a histogram. Kouznetsov teaches a method for monitoring events wherein the method comprises the step of creating histogram describing the specific event (column 2, lines 55-57). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to use histogram as taught by Kouznetsov and store the information taught by Park in that form, because histogram simplifies performing dynamic analysis. Further it would also simply seeing relationships and dependencies between certain pieces of information.

10.   **Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park**

(US Publication No. 2005/0108484) in the view of Sim et al (US Publication No.

20030046369) and further in the view of Kouznetsov (US Patent No. 6973577).

Park and Sim teach all the limitations disclosed in claim 48, however he does not

explicitly teach storing first and second information in a histogram. Kouznetsov teaches

a method for monitoring events wherein the method comprises the step of creating

histogram describing the specific event (column 2, lines 55-57). It would have been

obvious to one of the ordinary skill in the art during the time the invention was made to

use histogram as taught by Kouznetsov and store the information taught by Park in that

form, because histogram simplifies performing dynamic analysis. Further it would also

simply seeing relationships and dependencies between certain pieces of information.

11.   **Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park**

(US Publication No. 2005/0108484) in the view of Blackwell et al (US Publication

No. 20050166094). Park teaches all the limitations disclosed in claim 40, however he

does not explicitly teach the storage system management application generating a

graphical user interface. Blackwell teaches software systems using a graphical user

interface (paragraph 42). It would have been obvious to one of the ordinary skill in the

art during the time the invention was made to use graphical user interface as taught by

Blackwell in the Parks management system, because this would simplify interaction

between a user and management application, in other words GUI creates a user friendly

interface.

12.   **Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park**

(US Publication No. 2005/0108484) in the view of Sim et al (US Publication No.

20030046369) and further in the view of Blackwell et al (US Publication No.

20050166094). Park teaches all the limitations disclosed in claim 48, however he does

not explicitly teach the storage system management application generating a graphical

user interface. Blackwell teaches software systems using a graphical user interface

(paragraph 42). It would have been obvious to one of the ordinary skill in the art during

the time the invention was made to use graphical user interface as taught by Blackwell

in the Parks management system, because this would simplify interaction between a

user and management application, in other words GUI creates a user friendly interface.

The Prior Art

13.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

      - Natarajan (US Patent No. 5146540) discloses a system comprising multiple

processors and tree data structure, wherein the tree is split based on the amount of the

content and then corresponding portions of the tree are processed in parallel by the

plurality of the processors.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

15.   A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Inquiry

16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Angela M. Lie whose telephone number is 571-272-

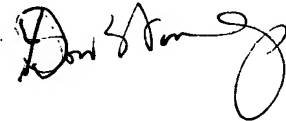8445. The examiner can normally be reached on M-F.

17.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

18.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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